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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,557	08/04/2000	DIAMANTIS GIKAS	67190/973904	9214

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EXAMINER

DETWILER, BRIAN J

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/555,557

Applicant(s)

GIKAS ET AL.

Examiner

Brian J Detwiler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,046,742 (Chari) and U.S. Patent No. 6,219,628 (Kodosky et al).

Referring to claim 5, Chari discloses in Figure 17 a graphical user interface comprising a vertically divided display for navigating interface parameters. The leftmost display pane comprises a hierarchical structure that contains at least one selectable interface parameter. In the present example, the "Cooling Subsystem" parameter has been selected via a movable cursor. The rightmost display pane comprises a detail display including a plurality of editable attributes of the "Cooling Subsystem" parameter. Said editable attributes can be defined and parameterized from within the rightmost display pane. Chari, though, fails to disclose that the graphical user interface can be applied to software components of an industrial automation system. Doing so, however, would have been obvious in view of the teachings of Kodosky. In column 1: line 66 through column 2: line 23, Kodosky explains that the prior art methods for developing and maintaining industrial automation systems were cumbersome. Kodosky further explains in column 4: lines 18-24 that industrial automation software typically includes a hierarchy of sub-virtual instruments (sub-VIs), which are used for controlling and modeling a plurality of devices. These sub-VIs inherently comprise parameters with at least one editable

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attribute that can be defined and parameterized. Accordingly, when developing or modifying the foundation of an industrial automation system, it would have been beneficial to have a user-friendly and intuitive mechanism for accessing and editing the hierarchy of sub-VIs.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to define and parameterize at least one editable attribute of an interface parameter of the industrial automation system taught by Kodosky using the graphical user interface of Chari. Doing so would have been beneficial to software developers because Chari's hierarchically organized graphical user interface allows users to access different parameters and components in an intuitive and user-friendly fashion.

Referring to claim 6, Chari discloses in Figure 17 a name portion and a data portion for each editable attribute displayed within the interface. The leftmost display pane comprises the name portion, which remains stationary during parameter navigation. The rightmost display pane comprises the data portion, which is horizontally scrollable when the graphical representation requires more space than the space offered by the display pane as illustrated in Figure 14.

Referring to claim 7, Chari discloses in Figure 17 that said name and data portions are arranged side by side in vertical columns.

Referring to claim 8, neither Chari nor Kodosky disclose arranging the name portion and the data portion in horizontal rows, the horizontal rows being arranged one below the other. At the time the invention was made, however, it would have been obvious to a person of ordinary skill in the art to simply rotate the interface of Chari so that the name portion was above or below the data portion. Applicant has not disclosed that a horizontal orientation provides an advantage,

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is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with Chari's vertical orientation because it still provides side by side access to the graphical elements in both portions. Therefore, it would have been obvious to one of ordinary skill in the art to modify the aforementioned combination of Chari and Kodosky to obtain the invention as specified in claim 8.

Referring to claim 9, Chari discloses in Figure 17 that the data portion is divided into rows, i.e. the editable attributes are arranged in rows from the top to the bottom of the rightmost display pane.

Referring to claims 10 and 11, as mentioned above, Chari discloses two display panes as part of the graphical user interface. While Chari is silent as to whether the positions of the display panes can be swapped, the examiner submits that it is notoriously well known in the state of the art for graphical user interfaces to be configurable in such a manner. Typically, this feature is referred to as a customizable desktop or workspace and it allows users to organize a plurality of windows or display panes in a desirable way. The examiner takes OFFICIAL NOTICE of this teaching. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the user to freely select the sequence of columns or rows and store that sequence as part of a customizable desktop or workspace in order to provide the user with greater control over their operating environment.

Referring to claim 12, Chari and Kodosky disclose the claimed elements as discussed above with regard to claim 5. Kodosky further discloses in column 4: lines 41-59 that a library of pre-compiled function blocks are used to aid in the compilation of the industrial automation

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system software. Naturally then, changes to the interface parameters will determine the use of one or more function blocks of the software interface.

Response to Arguments

Applicant's arguments filed 18 March 2004 have been fully considered but they are not persuasive. Applicant's primary argument is directed to Kodosky's alleged lack of a teaching or suggestion to combine the relevant teachings with those of Chari. It should first be noted that Applicant is silent with regard to Chari's teachings of a dividable display window, a first partial window comprising a hierarchical structure of an interface parameter, and a second partial window comprising a detail display of a selected interface parameter wherein an editable attribute of the parameter can be defined and parameterized. The main issue of contention, then, is whether or not Kodosky suggests utilizing the graphical user interface of Chari in an industrial automation system. Since Applicant's disclosure fails to specifically define the scope of "industrial automation system", the examiner correctly interprets this limitation as comprising the entire set of hardware and software that is usable in any automated framework of any industry. The breadth of "industrial automation system" is thus extremely large considering the vast number of industries that use computer automated procedures. Accordingly, the examiner submits that all Kodosky really needs to show regarding independent claim 5 is that one of ordinary skill in the art would have found it obvious to use the basic constructs of Chari's interface in some type of automated system. In Kodosky's "Description of the Related Art", a graphical programming environment is revealed with which a user can control or model devices "such as instruments, processes, or industrial automation hardware" (column 2: lines 49-55). It

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was thus at the very least well known to use graphical software to configure and control devices in industrial automation systems. What remains is whether there exists any suggestion to use a hierarchically based interface like that of Chari. The examiner submits that such a suggestion can be found at least in the columns and line numbers mentioned above and is further supported in column 13: lines 46-60, wherein Kodosky explains that “as the user places and arranges on the screen function nodes, structure nodes, input/output terminals, and connections or wires, etc., the graphical programming system operates to develop and store a tree of data structures which represent the graphical program.” Kodosky further states in column 13: lines 63-67 and column 14: line 1 that said tree is preferably hierarchical and based on the hierarchy and connectivity of the graphical program. Kodosky’s hierarchical tree of data structures is precisely the suggestion necessary to formulate the proposed combination. It shows that the components of an industrial automation system are hierarchical by nature and that an intuitive graphical user interface can be beneficial in managing such a system. Chari’s interface, meanwhile, is designed to allow users to manipulate a hierarchical tree control so that hierarchically organized data can be accessed, viewed, and modified. Accordingly, the examiner submits that one of ordinary skill in the art would have found it obvious and would have been motivated to use Chari’s interface in an industrial automation system as suggested by Kodosky.

With regard to independent claim 12, the only difference between it and independent claim 5 is the addition of the limitation, “wherein the at least one interface parameter determines use of a function block of the software interface”. All this limitation is really saying is that at least one parameter of the interface is directly or indirectly linked to a particular function of the software. The examiner submits that every part of an interface is linked to or “determines the

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use of' a function in the associated software. Applicant's arguments pertaining to program libraries and changes in programming routines appear to be unrelated in view of such a broad limitation. The rejection of claim 12 is thus maintained for the aforementioned reasons.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J Detwiler whose telephone number is 703-305-3986. The examiner can normally be reached on Mon-Thu 8-5:30 and alternating Fridays 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W Cabeca can be reached on 703-308-3116. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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